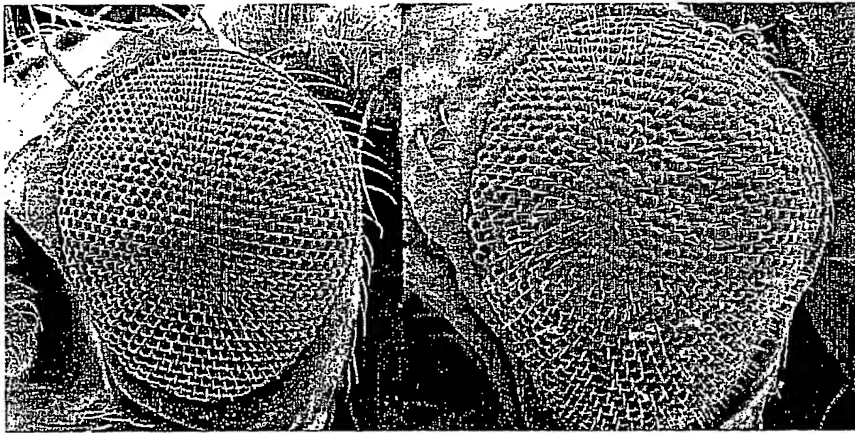


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Fig. 1A

Fig. 1B



wild type

ELP mutant

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Fig. 2

(↓ *Drosophila* mutants)

↓

d-epsin 1 MVDKFSMWKVRELADKVTNVVMNYEETEGKVREATNDDPWGPFGPLMOEAYSTFSVET  
h-epsin 1 ....MENMWKVRELVDKATNVVMNYEETESKVREATNDDPWGPFGOLMGEHAKATFMVEO

d-epsin 61 FPEFMSMLWKRMLQDNKTNWRRTYKSLILLNVLNRNGSERVVTSAREHIYDLRSLENYTF  
h-epsin 57 FPEFMMMLWSRMLKDNKNWRRVYKSLILLAVLNRNGSERVVTSAREHIYDLRSLENYTF

d-epsin 121 TDECGKDOGINVRHKVRELTFEIQDDRLREERKKAKKNKDKYVGNSSDAMGMRSGGNSG  
h-epsin 117 VDEHCKDOGINVRKVKRELTFEIQDDRLREERKKAKKNKDKYVGNSSDSN....GGGR.

d-epsin 181 YSGGSGGGGGGGGGYNDGPRSSSGDNWYSDK...SADKDRYEDDDTHYDGEREGSIDS  
h-epsin 172 YSER.YDPEPKSKW...DEEDKNKSAFPESDKLGELSDKIGSTIDDTISKFRKDRKDS

↓

d-epsin 238 FSPFRNYRYNTPASPAEVASEKPPSSLNMTNRKTVSSPVSKQPTSTASAKPALSOKKID  
h-epsin 227 PE.RCSDSDERKARRGRSPKGEFKDEEETTHKTHITQATETNTRHKSTANPSKTHD

d-epsin 298 LGAAANF...GKPAPGGAAGIEHPHTRDTPTSVDLMGASPSPTSKANNVQSNNNOLD  
h-epsin 287 LGAAAHITGDKASPDQNASTHPP.QSSVKTSPVSSKSSGDLVDLFDGTSSTGGSADLFG

d-epsin 354 DL...RKICSPPPG...QEKTLNSIAVIVDDDDDFNPRASDSQQEFGEFASAFGQPSAGST  
h-epsin 346 GFADFGSAAASGSFSPQVTATSCNGDFGWSAEN.QAPSPVASSGEFFGSASQPAVELV

d-epsin 413 ISEPPSTGLVPAA...NDEFADFAFOSTSTSAIDGNITKATPANDSFDFFNSAPTS  
h-epsin 405 SGSQSALGPPPAASNSSDLFDLMSSQAMTSSQSNFSSNMSINT.VGLGLPMSRSQNTD

d-epsin 469 TAAATATDILLAGLDLSIHOSMP...NDNMPEPIPAVTG.NNHPMSITNNN...NTNG  
h-epsin 464 MVQKEVSKTLPTWSDPSINISDNLIPCMOBSKEQQPSLNTLQQQNQSPMNVMTQSF

d-epsin 524 GAVPAAASVSTAVGATWEGDLKGGKMNDIDNHTMSKSG.KPSHPAPSMNALKTNSPAK  
h-epsin 524 GAVNLSSPSSMLPV.RPQNALIGGPMPSIPNATGTMGMAFLNTEMMNQSMGMNMN

d-epsin 583 APIENVQTGGCFPLSPMTSPNIFGAPAPQQIPQNSAFANFFAFQQQQQNHSSNNNNNSS  
h-epsin 583 IGISA.AGMELTGTMGMGMPNI...AMTSGTQPKQDAFANFANFSK.....

d-epsin 643 SAFDLFQ  
h-epsin 626 .....

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Fig. 3

h-18aaELP	MLNMWKVRELVDKATNVVMNYSEIESKVREATNDDPWGPSPGQLMGEIAKATFMYEQFPPEL	60
h-ELP	MLNMWKVRELVDKATNVVMNYSEIESKVREATNDDPWGPSPGQLMGEIAKATFMYEQFPPEL	60
*****		
h-18aaELP	MNMLWSRMLKDNKKNWRRVYKSLLLLAYLIRNGSERVVTSAREHIYDLRSLENYHFVDEH	120
h-ELP	MNMLWSRMLKDNKKNWRRVYKSLLLLAYLIRNGSERVVTSAREHIYDLRSLENYHFVDEH	120
*****		
h-18aaELP	GKDQGINIROKVKEVEFAQDDDLREERKKAKKNKDKYVGVSDDSVGGFRYSERYDPEP	180
h-ELP	GKDQGINIROKVKEVEFAQDDDLREERKKAKKNKDKYVGVSDDSVGGFRYSERYDPEP	180
*****		
h-18aaELP	KSKWDEEWDKNKSAFPFSDKLGEISDKIGSTIDDTISKFRKDRSDSPERCSDSDEEKKKA	240
h-ELP	KSKWDEEWDKNKSAFPFSDKLGEISDKIGSTIDDTISKFRKDRSDSPERCSDSDEEKKKA	240
*****		
h-18aaELP	RRGRSPKGEFKDEEETVTTKHIHITQATETTTTRHKRTANPSKTIDLGAAGHYTGDKASP	300
h-ELP	RRGRSPKGEFKDEEETVTTKHIHITQATETTTTRHKRTANPSKTIDLGAAGHYTGDKASP	300
*****		
h-18aaELP	DQNASTHTPQSSVKTSVPSSKSSGDLVDLFDGTSQSTGGSADLFGGFADFGSAAASGSFP	360
h-ELP	DQNASTHTPQSSVKTSVPSSKSSGDLVDLFDGTSQSTGGSADLFGGFADFGSAAASGSFP	360
*****		
h-18aaELP	SQVTATSGNGDFGDWSAFNQAPSGPVASSGEFFGSASQPAVELVSGSQSALGPPPAASNS	420
h-ELP	SQVTATSGNGDFGDWSAFNQAPSGPVASSGEFFGSASQPAVELVSGSQSALGPPPAASNS	420
*****		
h-18aaELP	SDLFDLMGSSQATMTSSQSMNFSMMSTNTVGLGLEPMSRSQPLQNVSTVLQKPNPLYNQNT	480
h-ELP	SDLFDLMGSSQATMTSSQSMNFSMMSTNTVGLGLEPMSRSQ-----NT	462
*****		
h-18aaELP	DMVQKSVSKTLPSTWSDPSVNIISLDNLLPGMQPSKPQPSLNTMIQQQNMQQPMNVMTQS	540
h-ELP	DMVQKSVSKTLPSTWSDPSVNIISLDNLLPGMQPSKPQPSLNTMIQQQNMQQPMNVMTQS	522
*****		
h-18aaELP	FGAVNLSSPSNMLPVRPQTNALIGGPMMPMSMPNVMTGTMGMAPLGNTPMMNQSMGMNMN	600
h-ELP	FGAVNLSSPSNMLPVRPQTNALIGGPMMPMSMPNVMTGTMGMAPLGNTPMMNQSMGMNMN	582
*****		
h-18aaELP	IGMSAAGMGLTGTMGMGMPNIAMTSGTVQPKQDAFANFANFSK	643
h-ELP	IGMSAAGMGLTGTMGMGMPNIAMTSGTVQPKQDAFANFANFSK	625
*****		

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Fig. 4A

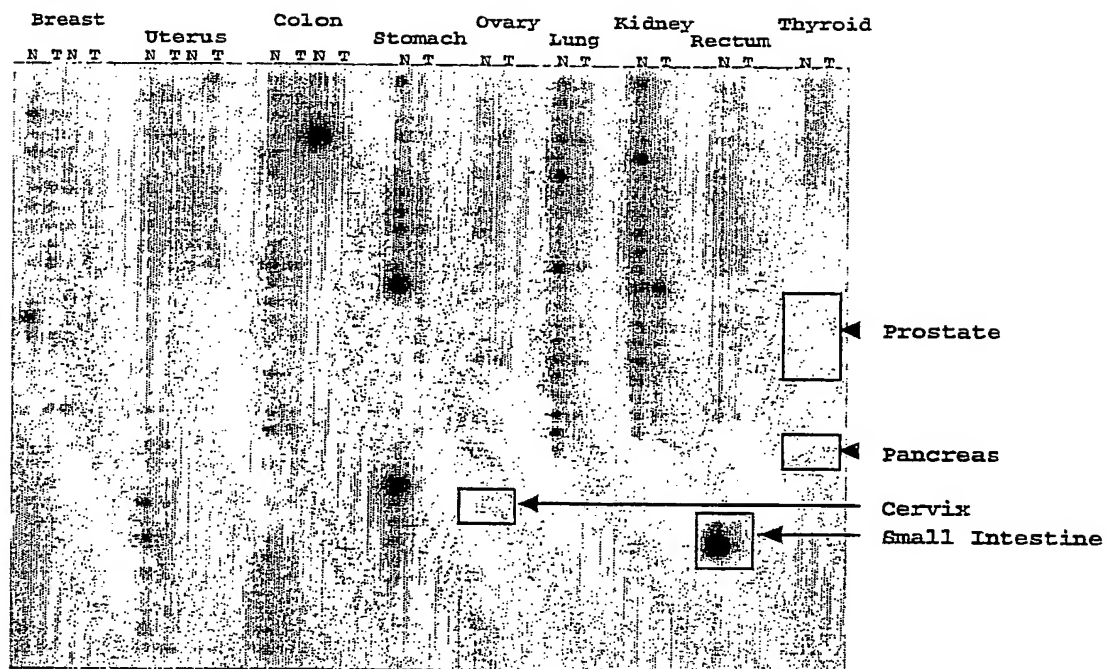
brain  
Heart  
skeletal muscle  
colon  
thymus  
spleen  
kidney  
liver  
small intestine  
placenta  
lung  
peripheral blood leukocyte

Fig. 4B

promyelocytic leukemia HL-60  
HeLa S3  
chronic myelogenous leukemia K-562  
lymphoblastic leukemia MOLT-4  
Burkitt's lymphoma Raji  
colorectal adenocarcinoma SW480  
lung carcinoma A549  
melanoma G-361

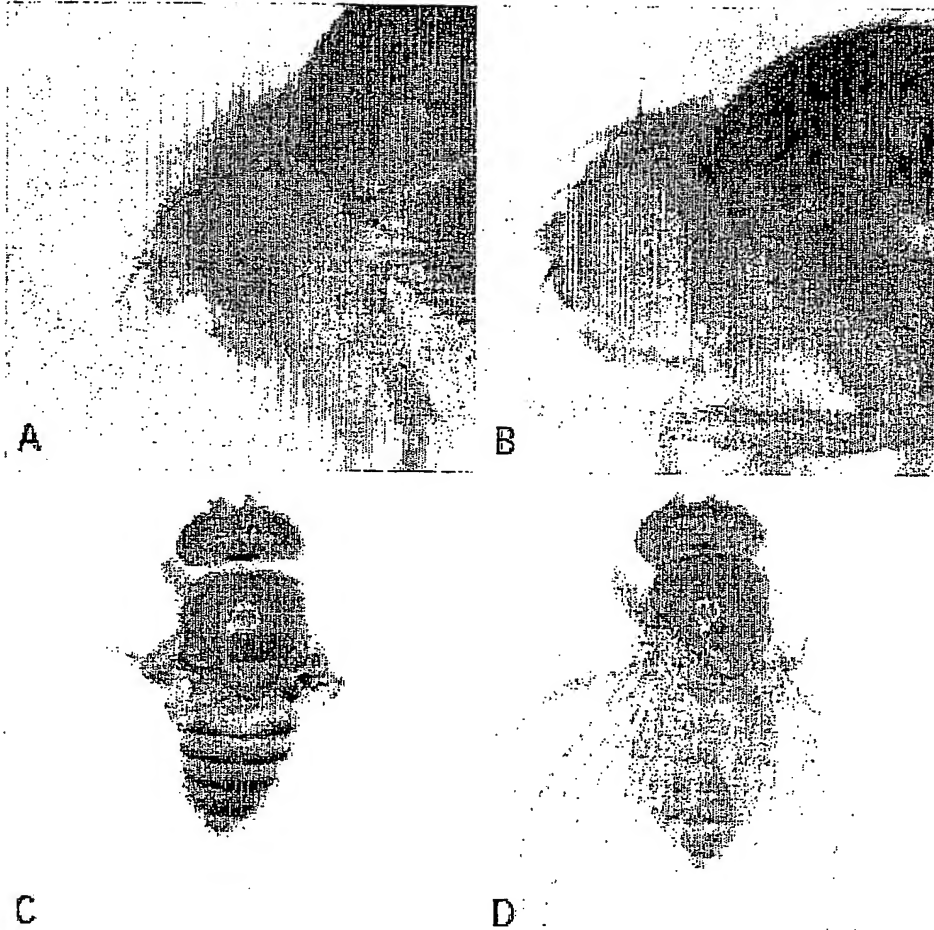
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Fig. 5



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Fig. 6



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